

Notice of Allowability

Application No.

10/058,647

Examiner

Todd Ingberg

Applicant(s)

UNGAR, DAVID M.

Art Unit

2193

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/17/2005.
2. ☒ The allowed claim(s) is/are 1-26.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 2/16/2006.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

TODD INGBERG
PRIMARY EXAMINER

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Steven Gilliam on February 16, 2006.

The following two amendments to the application have been made:

I. Amendment to Claim 1.

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Claim 1

A multipass parser implementation encoded on at least one computer-readable medium, the multipass parser implementation comprising: plural miniparsers each successively operable on a respective abstract syntax tree that corresponds to an input information encoding and that includes transformations of predecessor ones, [if any,]of the miniparsers, wherein respective ones of the miniparsers are limited to particular subsets of syntactic constructs to be parsed in the input information encoding.

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Claim 1

A multipass parser implementation encoded on at least one computer-readable medium, the multipass parser implementation comprising: plural miniparsers each successively operable on a respective abstract syntax tree that corresponds to an input information encoding and that includes transformations of predecessor ones, of the miniparsers, wherein respective ones of the miniparsers are limited to particular subsets of syntactic constructs to be parsed in the input information encoding.

II. Amendment to the Title of the Invention

The following amendment was not authorized by the Applicant's representative.

The new title for the invention is as follows:

**MODULAR PARSER ARCHITECTURE WITH MINI PARSERS INVOKED AS
DIRECTED BY PRESENT SYNTAX OF SOURCE CODE**

REASONS FOR ALLOWANCE

2. The following is an examiner's statement of reasons for allowance:

Claims 1, 13 and 23

As represented by the following:

Claim 1

A multipass parser implementation executing on a computer and stored on a computer readable medium comprising: plural miniparsers each successively operable on a respective abstract syntax tree that corresponds to an input information encoding and that includes transformations of predecessor ones, if any, of the miniparsers, wherein respective ones of the miniparsers are limited to particular subsets of syntactic constructs to be parsed in the input information encoding.

Claim 13

A method executing on a computer and stored on a computer readable medium of implementing a parser for an input information encoding, the method comprising: defining a succession of miniparsers each operable on a respective parse state resulting from a predecessor one of the miniparsers, wherein each of the miniparsers recognizes only a particular subset of syntactic constructs to be parsed in the input information encoding.

Claim 23

A method executing on a computer and stored on a computer readable medium of parsing an information encoding, the method comprising: performing plural successive transformations, each successive one of the transformations operating on an abstract syntax tree that is a result of a predecessor one of the transformations, each of the successive transformations handling only a subset of syntactic constructs to be recognized in the information encoding.

Statement for Allowance for Claims 1, 13 and 23

Applicant's argument that the prior art reference teaches languages such as C++ with embedded SQL. Each of these different languages would have their own separate Abstract Syntax Tree (AST). The parsing of these different languages is the basis of the modularization of the parser implementation. The claimed invention has one language and the parsing inherently produces a root node of the AST (A.K.A. parse tree) and then the additional mini parsers, parse the remaining arguments in the line of code with mini parsers based on the presence of additional arguments as encountered.

Allowance for claim 26

Claim 26 is represented by the following:

An apparatus comprising: encoded information on a computer readable medium and executing on a computer substantially in accordance with a grammar; multipass means for performing plural successive transformations on the encoded information, each successive transformation handling only a subset of syntactic constructs in accordance with the grammar.

Statement for Claim 26

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In addition, to the reasons mentioned for independent claims 1, 13 and 23, the term substantially is not indefinite. Substantially meaning the syntax present invokes a mini parser.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

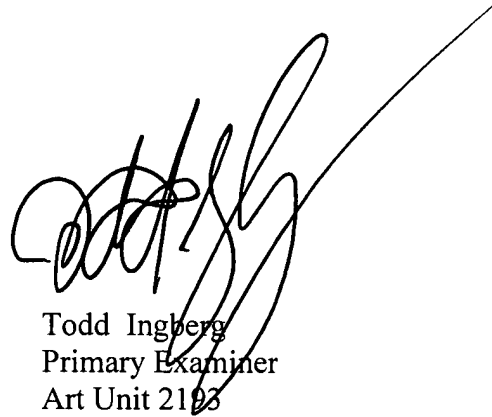
Correspondence Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Todd Ingberg whose telephone number is (571) 272-3723. The examiner can normally be reached on during the work week.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (571) 272-3719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Todd Ingberg
Primary Examiner
Art Unit 2193

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